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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/710,941	11/13/2000	Ralph Arcurio	C-480	6268

7590 05/08/2002

Sidney Persley Esquire
Sun Chemical Corporation
222 Bridge Plaza South
Fort Lee, NJ 07024

EXAMINER

GORR, RACHEL F

ART UNIT	PAPER NUMBER
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1711

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DATE MAILED: 05/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/710,941

Applicant(s)

ARCURIO ET AL.

Examiner

Rachel Gorr

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) 50-54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. Applicant's election of Group I in Paper No. 5 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, 8-10, 13, 15, 20, 21, 24-30 and 36-41 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yamashita.

Yamashita discloses, in example 1, a polyurethane/urea made from a prepolymer of a polymeric diol having a molecular weight of 2000, a diol having a molecular weight of 213, and isophorone diisocyanate at an NCO/OH ratio of less than 2. The polymeric diol comprises 67 % of the equivalents of the diol component. The prepolymer has an NCO content of 1.64 wt. %. The chain extends with about 80 equivalent % of the isophorone diamine. At the top of page 17, he teaches the amounts of resin, solvent and pigment for an ink composition made from the polyurethane/urea.

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He discloses using this ink on polypropylene and polyester substrates of page 16.

Because the resin and the inks of Yamashita have the same compositions, the viscosity values would be inherent. When a reference teaches a product that appears to be the same as the product set forth in a product-by-process claim but produced by a different process, the burden of proof is shifted to the applicant. (In re Marosi, 218 USPQ 289). Furthermore, the applicants state, at the top of page 10 of their disclosure, that batch extension reactions at less than 100 % diamine equiv. result in the same product as the products of their invention.

5. Claims 7, 11, 12, 14, 16-19, 22, 23, 31-35 and 42-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita in view of Peters.

6. Yamashita discloses the invention of the claims (see above rejection). His example 1 differs from the claims by not showing a mixture of diisocyanates, by not using polycaprolactone diol, by not using butane diol, by not using an acetate solvent, by not using nitrocellulose dispersant, by not specifically showing a laminate, and by adding the diamine chain extender to the prepolymer rather than vice versa.

7. Peters discloses, col. 6, lines 28-30, that it's preferable to add prepolymer to the diamine chain extender.

8. It would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the composition of example 1 by using mixtures of diisocyanates, polycaprolactone, butane diol, acetate solvents and nitrocellulose because Yamashita teaches that these can all function equivalently to the components of example 1. It would have been obvious to use the lamination process of the claims

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because these are well known methods for laminating a printed substrate. It would have been obvious to add the prepolymer to the diamine because Peters discloses this as preferable to adding the diamine to the prepolymer for preventing gel.

9. Claims 1, 6, 8-10, 15, 20, 21, 24, 28-30 and 36-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Mauro.

In synthesis example I-2 of col. 9 of US patent, Mauro discloses polyurethane/urea resins made from prepolymers of isophorone diisocyanate and a glycol having a molecular weight slightly less than 2000. The prepolymer has an NCO content of 3.2 %, and is made at an NCO/OH ratio of less than 2, and is reacted with about 100 % equivalents of isophorone diamine. The number average molecular weight of the resin is 56,880. He teaches using this resin as an ink (col. 8, line 50) in a solvent and pigment composition (col. 8, line 52). The compositions of Table II-2 show the same amounts of solvent, resin and colorant as the claims. He discloses adding the prepolymer to the chain extender.

10. Applicant's arguments filed 4-11-02 have been fully considered but they are not persuasive. The applicants argue that Mauro doesn't use a glycol to make the prepolymer. The example states glycol. The applicants argue that Mauro only uses one polyol. According to the limitations of claim 1, one polyol could meet the limitations specified for two polyols. The argument for the Yamashota rejection are moot in view of the new grounds of rejection.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See

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MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The other references cited show the known process of adding a prepolymer to an amine chain extender.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachel Gorr whose telephone number is (703) 308-3608. The examiner can normally be reached on Mon., Tues., Thurs., Fri., from 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Seidleck can be reached on (703) 308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

R.G.
May 6, 2002


RACHEL GORR
PRIMARY EXAMINER